

6EM7

Dual Triode

With High-Mu Unit and Low-Mu Unit

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage (AC or DC). 6.3 \pm 10% volts

Current at 6.3 volts. 0.925 amp

Direct Interelectrode Capacitances (Approx.):^a

	Unit No.1	Unit No.2	
Grid to plate	4.8	10	$\mu\mu\text{f}$
Grid to cathode and heater. . .	2.2	7	$\mu\mu\text{f}$
Plate to cathode and heater . .	0.6	1.8	$\mu\mu\text{f}$

Characteristics, Class A₁ Amplifier:

	Unit No.1	Unit No.2	
Plate Voltage	250	150	volts
Grid Voltage.	-3	-20	volts
Amplification Factor.	68	5.4	
Plate Resistance (Approx.). . . .	40000	750	ohms
Transconductance.	1600	7200	μmhos
Plate Current	1.4	50	ma
Plate Current for plate volts =			
60 and grid volts = 0	-	95	ma
Plate Current for grid volts = -28.	-	10	ma
Grid Voltage (Approx.) for plate			
$\mu\text{a} = 10$	-5.5	-	volts
Grid Voltage (Approx.) for plate			
$\mu\text{a} = 100$	-	-45	volts

Mechanical:

Operating Position. Any

Maximum Overall Length. 2-7/8" ←

Maximum Seated Length 2-5/16" ←

Maximum Diameter. 1-9/32"

Bulb. T9

Base. Short Intermediate-Shell Octal 8-Pin
with External Barriers (JEDEC Group 1, B8-58)

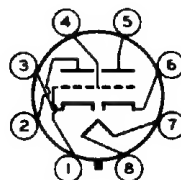
Basing Designation for BOTTOM VIEW. 8BD

Pin 1 - Grid of
Unit No.2

Pin 2 - Plate of
Unit No.2

Pin 3 - Cathode of
Unit No.2

Pin 4 - Grid of
Unit No.1



Pin 5 - Plate of
Unit No.1

Pin 6 - Cathode of
Unit No.1

Pin 7 - Heater

Pin 8 - Heater

← Indicates a change.



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DATA 1
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VERTICAL-DEFLECTION OSCILLATOR

Values are for Unit No.1

Maximum Ratings, Design-Maximum Values:

For operation in a 525-line, 30-frame system^b

DC PLATE VOLTAGE.	330	max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE.	400	max.	volts
CATHODE CURRENT:			
Peak.	77	max.	ma
Average	22	max.	ma
PLATE DISSIPATION	1.5	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode. .	200	max.	volts
Heater positive with respect to cathode. .	200 ^c	max.	volts

Maximum Circuit Values:

Grid-Circuit Resistance:

For grid-resistor-bias or cathode-bias operation. 2.2 max. megohms

VERTICAL-DEFLECTION AMPLIFIER

Values are for Unit No.2

Maximum Ratings, Design-Maximum Values:

For operation in a 525-line, 30-frame system^b

DC PLATE VOLTAGE.	330	max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE ^d	1500	max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE.	250	max.	volts
CATHODE CURRENT:			
Peak.	175	max.	ma
Average	50	max.	ma
PLATE DISSIPATION	10	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode. .	200	max.	volts
Heater positive with respect to cathode. .	200 ^c	max.	volts

Maximum Circuit Values:

Grid-Circuit Resistance:

For grid-resistor-bias or cathode-bias operation. 2.2 max. megohms

^a Without external shield.

^b As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission.

^c The dc component must not exceed 100 volts.

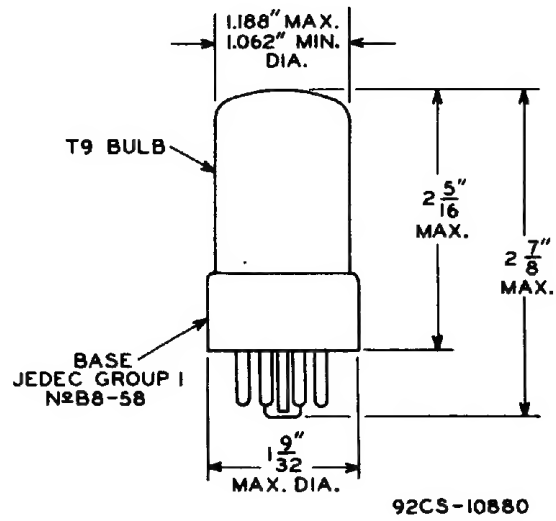
^d This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one vertical scanning cycle. In a 525-line, 30-frame system, 15 per cent of one vertical scanning cycle is 2.5 milliseconds.

OPERATING CONSIDERATIONS

The *bulb* becomes hot during operation. To insure adequate cooling, therefore, it is essential that free circulation of air be provided.



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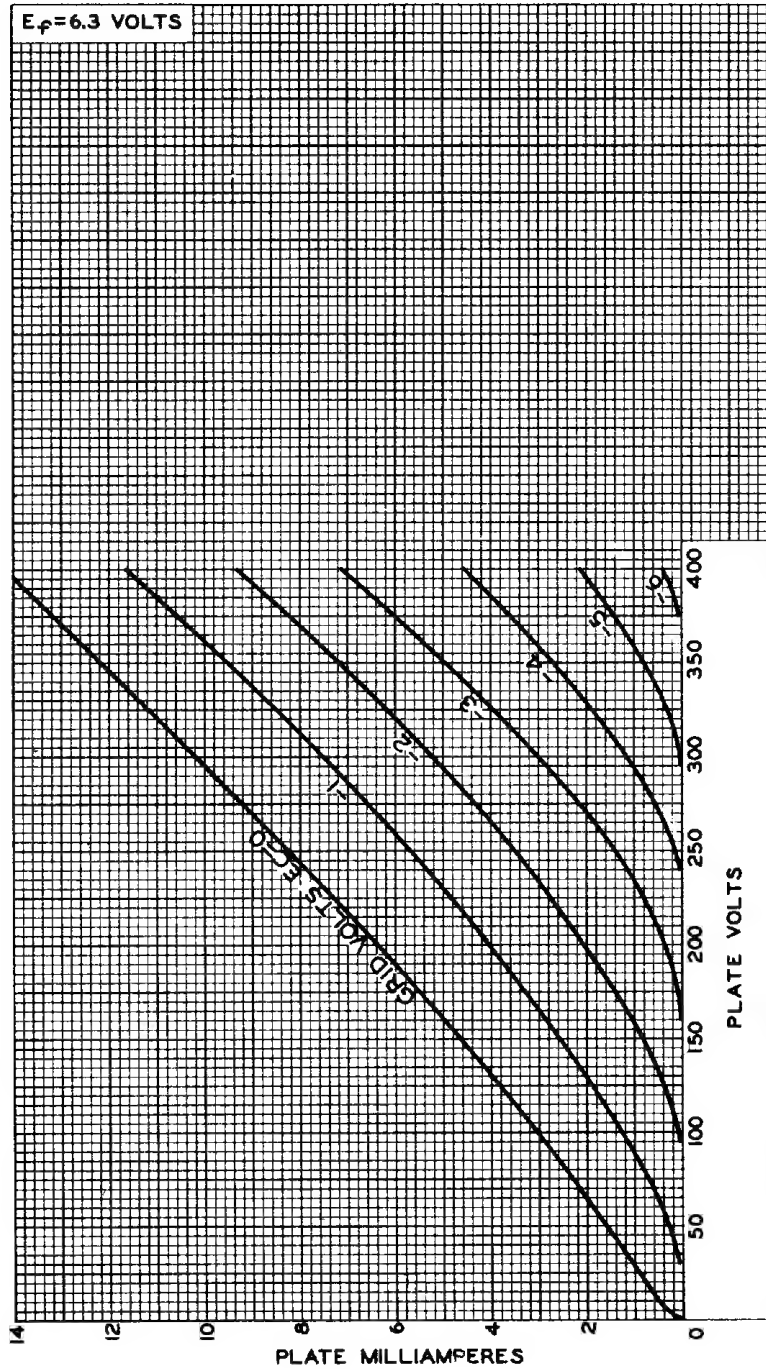


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DATA 2
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AVERAGE PLATE CHARACTERISTICS Unit No.1



92CM-9912

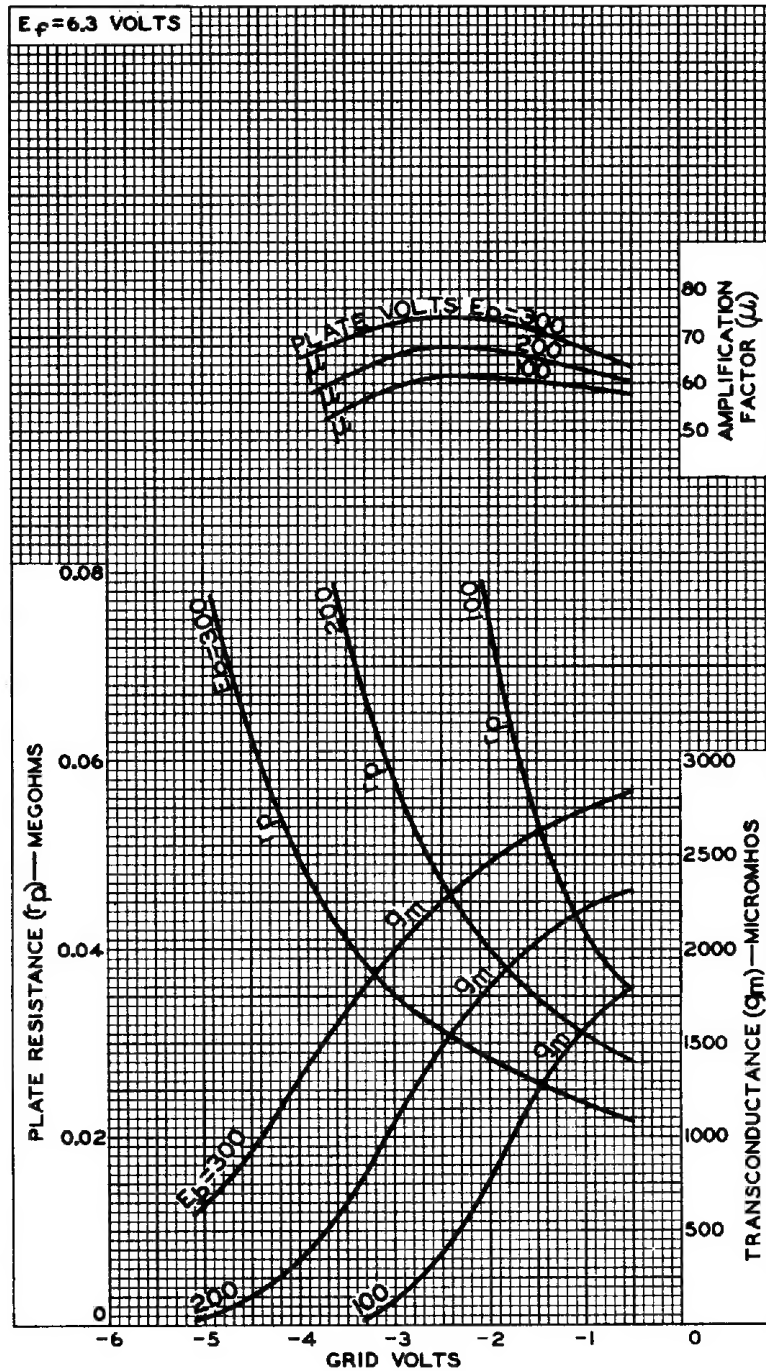
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AVERAGE CHARACTERISTICS Unit No.1



92CM-9915RI

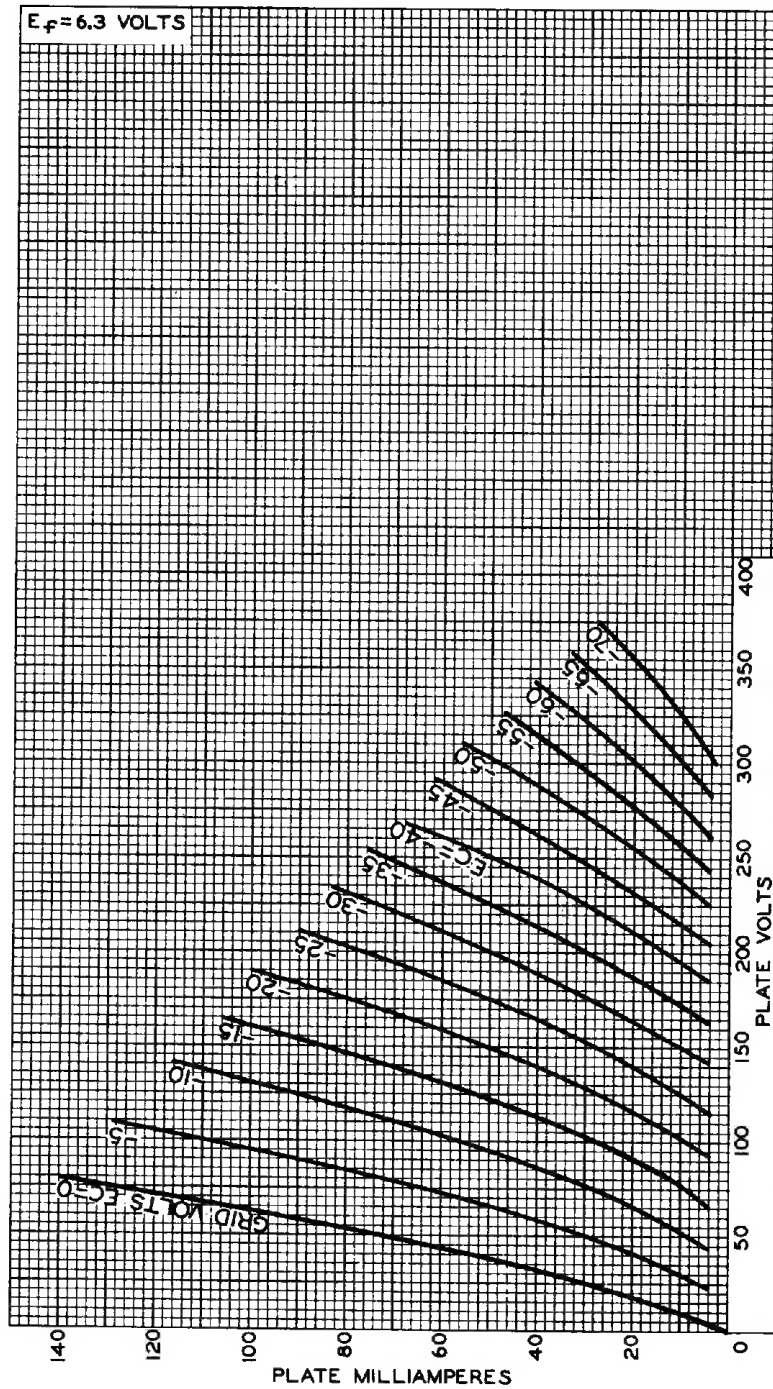


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DATA 3
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AVERAGE PLATE CHARACTERISTICS Unit No.2



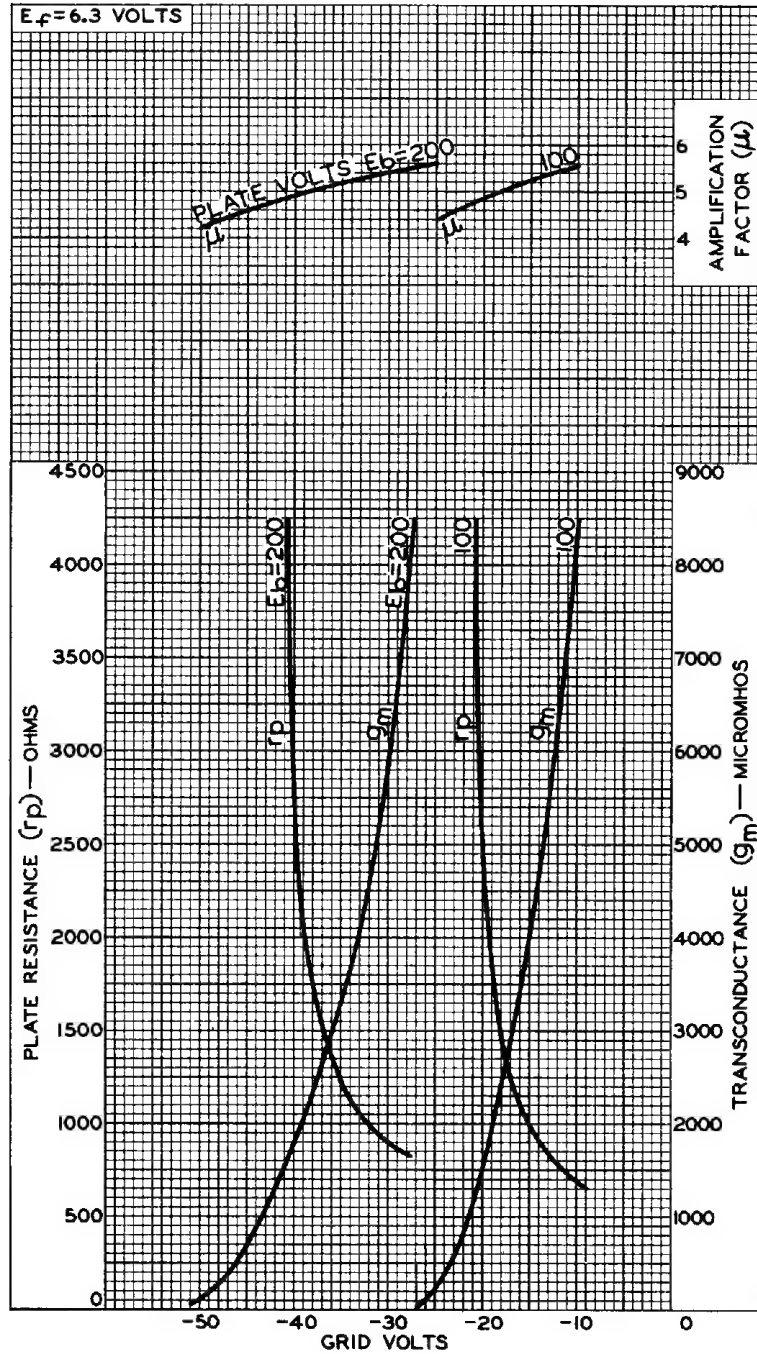
92CM-10466

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AVERAGE CHARACTERISTICS Unit No. 2



92CM-10467



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DATA 4
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